Strategy looks to river diversions for help with Gulf 'dead zone'

Louisiana Department of Agriculture and Forestry Commissioner Mike Strain

Proposal says voluntary actions will help Gulf

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A proposed new strategy for reducing the annual "dead zone" off Louisiana's Gulf coast relies heavily on the promise of river water diversions to remove nutrients that deplete oxygen levels to the point they no longer support aquatic life.

The authors of a draft report of the plan say the state's contribution to the dead zone is minimal. Most of the nutrients, primarily nitrogen and phosphorus, come from states upstream in largely agricultural and metropolitan areas.

Louisiana Department of Agriculture and Forestry Commissioner Mike Strain said the state's plan goes beyond just contributions to the dead zone through the Mississippi River and looks at all the state's waterways.

"It's much more encompassing," Strain said.

Some critics, however, have voiced concerns that the draft strategy is lacking in specific actions and doesn't go much beyond maintaining the status quo.

"It's a pre-strategy I guess. I don't really see it as a strategy because it doesn't really have anything other than ongoing activities and diversions," said Doug Daigle, coordinator of the Louisiana hypoxia working group and the lower Mississippi River subcommittee.

Even though it's true Louisiana has never been a major source of the nutrients causing the dead zone in the Gulf of Mexico each summer, environmentalists say, that doesn't mean more can't be done.

"Regretfully, I was disappointed in it," said Matt Rota, senior policy director with the Gulf Restoration Network. The strategy doesn't include specific goals and timelines for nutrient reductions and the activity list is primarily administrative issues, he said.

"It seems like a list of this is what we have been doing, but I don't see anything to move the ball forward," Rota said.

Four state agencies worked to develop the plan to fulfill an obligation as members of the Mississippi River Gulf of Mexico Watershed Nutrient Task Force, which was put in place to try to reduce the size of the annual dead zone of low oxygen that forms off the coast of Louisiana every summer.

Within that task force's 2008 action plan, the overall goal is to reduce the five-year running average of the dead zone to less than 1,930 square miles by 2015 through voluntary actions coordinated through federal agencies, states and tribes. In 2013, this dead zone was measured to be 5,800 square miles.

Each state needed to put together a nutrient reduction strategy so that the plans could be tailored to specific conditions.

In response, representatives from the Coastal Protection and Restoration Authority, Department of Natural Resources, Department of Environmental Quality and the Department of Agriculture and Forestry put together a workgroup last year to develop a nutrient management strategy.

The plan says the strategy was "for the purpose of managing nitrogen and phosphorus to protect, improve, and restore water quality in Louisiana's inland and coastal waters."

The five main focus areas to put the state's strategy into action will be: river

diversions; "nonpoint source" management, which means things like storm water runoff; management of potential pollution coming from outflow pipes; developing and supporting incentives for people and businesses to take action; and leveraging opportunities.

The focus is on voluntary actions to keep nutrients on farm lands, said Carrie Castille, associate commissioner of public policy and governmental affairs at the Louisiana Department of Agriculture and Forestry.

"I think we have the partnerships in place to do this, but it will take time," Castille said.

The state's strategy envisions nutrient reductions as a result of river diversion projects that are being designed or are in the planning stages. The projects will divert water and sediment from the Mississippi and Atchafalaya rivers into coastal marshes.

Vegetation can absorb nutrients in the water and have been used for years in sewage treatment facilities. If all the diversions planned in the 2012 coastal master plan are built, there is the potential to remove more than 68,000 tons of nitrogen and more than 1,300 tons of phosphorus from the rivers, according to computer models from the Coastal Protection and Restoration Authority.

According to the draft strategy, Louisiana adds about 1.7 percent of the total nitrogen and 2.4 percent of the total phosphorus reaching the Gulf of Mexico.

"These extrapolations suggest that river diversions in Louisiana could remove more nitrogen than it contributes and a significant portion of phosphorus, thereby mitigating some of the nutrient loads from the upbasin states," according to the draft plan.

Some research done in Louisiana and on the East Coast has questioned whether that too much nutrient-rich water can harm, instead of help, wetland vegetation.

Strain said the amount of nutrients that end up in the Mississippi River will be reduced over time as improvements in agricultural practices in Louisiana and in states upstream help keep nutrients on the field instead of running off into streams and rivers.

The focus in the state will be getting more farmers and others involved in voluntary conservation measures, even as money for conservation programs and incentives continues to decline.

"We have to show, through our delegation, that this is a priority," Strain said.

If the state isn't successful in making progress in this area, Strain said, the U.S. Environmental Protection Agency will set specific limits on all the watersheds for regulation purposes.

"It is incumbent on us to get ahead of the curve," he said.

The draft plan is open for public comment until Jan. 31.
